IN THE CLAIMS:

1. (Withdrawn) A method of fabricating non-luminescent composite microarray slides useful for carrying a microarray of biological polymers comprising the acts of:

providing a non-porous substrate;

providing a non-luminescent microporous membrane formed by a phase inversion process, the process comprising the acts of:

formulating a dope comprising a solvent, one or more non-solvents, opaque solids, and polyamide(s);

mixing the dope to cause dissolution of the polyamide and opaque solids therein;

producing an opaque solids-filled phase inversion dope;

casting a portion of the opaque solids-filled phase inversion dope; and

quenching the cast portion of the opaque solids-filled phase inversion dope to form a non-luminescent, microporous membrane;

providing a surface treatment;

applying the surface treatment to the non-porous substrate; and

intermingling the non-porous substrate having the surface treatment with the non-luminescent, microporous membrane such that the non-porous substrate is sufficiently covalently bonded to the non-luminescent microporous membrane wherein the combination produced thereby is useful in microarray applications.

2. (Withdrawn) The method of claim 1 wherein the surface treatment is selected from the group comprising:

3-aminopropyl triethoxysilane, N-(2-aminoethyl)-3-aminopropyl trimethoxysilane, 3-glycidoxypropyltrimethoxysilane, (10-carbomethoxydecyl) dimethylchlorosilane or 2-(3,4-epoxycyclohexyl)-ethyltrimethoxysilane.

3. (Withdrawn) The method of claim 1 wherein, the surface treatment comprises a 3-aminopropyl triethoxysilane followed by treatment with a polyamido-polyamine epichlorohydrin resin.

4. (Withdrawn) The method of claim 1 wherein, the non-porous substrate is selected from the group comprising:

glass, Mylar, ceramic, acrylic, polypropylene, polycarbonate, polysulfone, polyamide and polyaramid.

5. (Withdrawn) The method of claim 1 wherein, the non-porous substrate is glass.

6. (Withdrawn) The method of claim 1 wherein, the non-porous substrate is a polyester.

7. (Withdrawn) The method of claim 1 wherein, the non-porous substrate is Mylar.

8. (Withdrawn) The method of claim 7 wherein, the surface of the Mylar is oxidized with sulfuric acid or corona discharge to enable it to bond to a polyamido-polyamine epichlorohydrin polymer.

9. (Withdrawn) The method of claim 1 wherein the opaque solids are carbon particles.

10. (Withdrawn) The method of claim 1 wherein the carbon particles are less than 5 microns in size.

11. (Withdrawn) The method of claim 1 wherein the carbon particles are substantially uniformly distributed throughout the non-luminescent microporous membrane.

12. (Withdrawn) The method of claim 1 wherein the carbon particles are partially incorporated into the non-luminescent microporous membrane.

13. (Withdrawn) The method of claim 1 wherein the carbon particles are substantially wholly incorporated into the non-luminescent microporous membrane.

14. (Withdrawn) The method of claim 1 wherein the non-luminescent microporous membrane is charge-modified.

Claims 15-31 (Cancelled)

32. (Withdrawn) Composite microarray slides, useful for carrying a microarray of biological polymers comprising:

an optically passive substrate comprising:

a phase-inversion support and opaque solids that are substantially non-reactive chemically with the phase-inversion support, in a weight ratio with the phase-inversion support such that the optically passive substrate absorbs light at substantially all wave lengths from about

300 nm to about 700 nm;

a non-porous substrate; and

a surface treatment, operatively positioned between the optically passive substrate and the non-porous substrate, for sufficiently covalently bonding the non-porous substrate to the optically passive substrate wherein the combination composite microarray slides produced thereby is useful in microarray applications.

33. (Withdrawn) The composite microarray slide of claim 32 wherein the optically passive substrate comprises polyamide.

34. (Withdrawn) The composite microarray slide of claim 32 wherein the optically passive substrate is in the form of a membrane.

35. (Withdrawn) The composite microarray slide of claim 32 wherein the opaque solids are carbon particles.

36. (Withdrawn) The composite microarray slide of claim 35 wherein the carbon particles are less than about 5 microns in size.

37. (Withdrawn) The composite microarray slide of claim 35 wherein the carbon particles are substantially uniformly distributed throughout the optically passive substrate.

38. (Withdrawn) The composite microarray slide of claim 35 wherein the carbon particles are partially incorporated into the optically passive substrate.

39. (Withdrawn) The composite microarray slide of claim 37 wherein the optically passive substrate absorbs light at substantially all wavelengths from about 300 to about 700 nm.

40. (Withdrawn) The composite microarray slide of claim 32 wherein the phase-inversion support has been charge-modified.

41. (Withdrawn) The composite microarray slide of claim 39 wherein the optically passive substrate has a reflectance of no more than 50% of incident light at any wavelength within about 300 to about 700 nm.

42. (Withdrawn) The composite microarray slide of claim 32 wherein the phase-inversion support is hydrophilic.

43. (Withdrawn) The composite microarray slide of claim 42 wherein the phase-inversion support is skinless.

44. (Withdrawn) The composite microarray slide of claim 43

wherein the phase-inversion support comprises nylon.

45. (Withdrawn) The method of claim 1 wherein the polyamide(s) is selected from the group consisting of:

Nylon 66, Nylon 46, Nylon 6, polysulfone, polyethersulfone, polyvinylidenedifluoride (PVDF).

46. (Currently Amended) A composite microarray slide, useful for carrying a microarray of biological polymers comprising:

a substantially non-reflective phase inversion microporous membrane support having both a membrane polymer and a plurality of opaque solids intimately bound to, and/or partially/completely contained within the polymer of the phase inversion membrane support such that the phase inversion microporous membrane support provides little fluorescence from about three hundred (300) nm to about seven hundred (700) nm;

a non-porous substrate; and

a surface treatment, operatively positioned between the substantially non-reflective phase inversion microporous membrane support and the non-porous substrate, for sufficiently covalently bonding the non-porous substrate to the substantially non-reflective phase inversion microporous membrane support.

47. (Currently Amended) The composite microarray slide of claim 46 wherein, the surface treatment comprises:

treatment with [[a]] 3-aminopropyl triethoxysilane followed by treatment with a polyamido-polyamine epichlorohydrin resin.

48. (Currently Amended) The composite microarray slide of claim 46 wherein, the surface treatment comprises:

treatment with (10-carbomethoxydecyl) dimethylchlorosilane followed by treatment with a polyamido-polyamine epichlorohydrin resin.

49. (Currently Amended) The composite microarray slide of claim 46 wherein, the surface treatment comprises:

treatment with 3-glycidoxypropyltrimethoxysilane.

50. (Currently Amended) The composite microarray slide of claim 46 wherein, the surface treatment comprises:

treatment with N-(2-aminoethyl)-3-aminopropyltrimethoxysilane followed by treatment with a polyamido-polyamine epichlorohydrin resin.

51. (Currently Amended) The composite microarray slide of claim 46 wherein, the non-porous substrate comprises a material [[is]]selected from the group ~~comprising~~ consisting of:

glass, Mylar, ceramic, acrylic, polypropylene, polycarbonate, polysulfone, polyamide and polyaramid.

52. (Previously Presented) The composite microarray slide of claim 46 wherein, the non-porous substrate comprises:

glass.

53. (Previously Presented) The composite microarray slide of claim 46 wherein, the non-porous substrate comprises:

a polyester.

54. (Previously Presented) The composite microarray slide of claim 46 wherein the, the non-porous substrate comprises:

Mylar.

55. (Currently Amended) The composite microarray slide of claim 46 wherein the substantially non-reflective phase inversion microporous membrane support comprises a polymer [[is]]selected from the group consisting of:

Nylon 66, Nylon 46, Nylon 6, polysulfone, polyethersulfone, polyvinylidenediflouride (PVDF).

56. (Previously Presented) The composite microarray slide of claim 46 wherein the substantially non-reflective phase inversion microporous membrane support comprises:

polyamides.

57. (Previously Presented) The composite microarray slide of claim 46 wherein the opaque solids comprise:

pigments.

58. (Previously Presented) The composite microarray slide of claim 46 wherein the opaque solids comprise:

carbon particles.

59. (Previously Presented) The composite microarray slide of claim 46 wherein the substantially non-reflective phase inversion microporous membrane support has been charge-modified.

60. (Previously Presented) The composite microarray slide of claim 58 wherein the carbon particles are less than five microns in size.

61. (Previously Presented) The composite microarray slide of claim 58 wherein the carbon particles are substantially uniformly distributed throughout the substantially non-reflective phase inversion microporous membrane support.

62. (Currently Amended) The composite microarray slide of claim 58 wherein the carbon particles are ~~substantially wholly~~ incorporated into the substantially non-reflective phase inversion microporous membrane support.

63. (Previously Presented) The composite microarray slide of claim 46 wherein the substantially non-reflective phase inversion microporous membrane support has been charge-modified.

64. (Currently Amended) The composite microarray slide of claim 46 wherein the surface treatment comprises:

treatment with an organosilane having the formula:

$RSi(X)_{3-N}A_N$,

where X is an ethoxy, methoxy, or chloride group, and R is a functional group that interacts with nylon, or with an intermediate substance capable of bonding to nylon and ~~wherein the 'A' group~~ A is an additional unreactive group that may or may not be present (depending on whether N is 0, 1, or 2).

65. (Currently Amended) The composite microarray slide of claim 46 wherein, the surface treatment comprises:

treatment with 2-(3,4-epoxycyclohexyl)-ethyltrimethoxysilane.